

Appln. No. 10/531,493

Attorney Docket No. 10808-234

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested. Claims 1-15 remain pending.

Claim Rejections - 35 U.S.C. §112

Claims 3-7 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 3, the examiner contends that the specification indicates that the auxiliary terminal regions and auxiliary doping regions are the same layer. However, applicants submit that in paragraph [0022] the auxiliary doping regions refers to the pockets or halos which are contained in the second part of the phrase not the auxiliary terminal regions. It is also noted that the auxiliary terminal regions are separated by the "and/or" conjunction from the pockets or halos. Accordingly, one of ordinary skill in the art would understand that the auxiliary terminal regions are separate from the auxiliary doping regions and that the specification in paragraph [0022] is consistent with claim 3.

Both claims 5 and 6 depend from claim 2. The numeral 4 in claim 5 and the numeral 5 in claim 6 were struck out in the preliminary amendment.

Accordingly, applicants respectfully request withdrawal of the rejections under 35 U.S.C. §112.



BRINKS HOFER GILSON & LIONE
PO Box 10395
Chicago, IL 60610

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Claim Rejections - 35 U.S.C. §103(a)

Claims 1, 2, and 9-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,569,717 to Murade (Murade) in view of U.S. Patent 6,294,420 to Tsu et al. (Tsu).

Claim 1 recites "the capacitor and the active component forming a memory cell wherein at least one processor is contained in the integrated circuit arrangement". Applicant suggests that a *prima facie* case for obviousness has not been established by the examiner. The MPEP §2143.01 provides:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

However, no such motivation is suggested by the references. "The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP §2142. The examiner has not provided factual support that the subject matter of claim 1 would have been obvious at the time of the invention to a person of ordinary skill in the art. Rather, the examiner has merely made a conclusory statement that it would be desirable to package the processor and the TFT panel to reduce size. Which may or may not be desirable based on the many design constraints of such a system.



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However, Murade discloses, col. 10, 11. 30 to 35, a thin film is formed by deposition of silicon and recrystallization. The result is a film that is not mono crystalline. Instead grains with border areas are produced. In the border areas there is a discontinuity and, therefore, there is no mono crystalline film. If this silicon producing method is compared with the methods for producing mono crystalline silicon, for instance the Czochralski method, it is clear that the TFT silicon film has a poor quality compared with real mono crystalline silicon. The poor quality results in low performance transistors compared to high performance transistors in processors. For instance, the TFT has a comparable low ON-current and a high OFF-current. Therefore, it is not obvious to combine such different technologies as the TFT array of Murade with processor technology. This is even more apparent with regard to claim 8 as discussed below.

Accordingly, the references suggest away from combination and the examiner has failed to provide any other factual support as to why the combination would have been obvious to one of ordinary skill in the art, therefore, the combination as provided by the examiner is improper.

In addition, claim 2 recites the control electrode insulation region contains a different material than the dielectric region. This limitation was not addressed by the examiner.

Claim 9 recites the dielectric region comprises a material having a dielectric constant greater than 4, the electrode region remote from the insulating region comprises a metal, and the electrode region remote from the insulating region adjoins a region containing metal semiconductor compounds.



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Claim 11 recites the capacitor in the transistor form a memory cell in conjunction with a processor, therefore, the arguments provided above in support of claim 1 equally apply to claim 11.

Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,569,717 to Murade (Murade) in view of U.S. Patent 6,294,420 to Tsu et al. (Tsu) and further in view of U.S. Patent 5,555,520 to Sudo et al. (Sudo).

Specifically with regard to claim 8, Murade does not teach or suggest that the electrode region is a monocrystalline region. In addition, no motivation is provided in any of the cited references to produce the TFT circuit of Murade where the electrode region is a monocrystalline region. Such a combination would only have been made in hindsight to reconstruct the instant claims. "The examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made." MPEP §2142. The examiner must refrain from using hindsight, and consider the subject matter claimed "as a whole." When looked at as a whole, it would not have been obvious to extract elements from the processor design of Sudo to create the TFT design of Murade. Therefore, the applicants respectfully submit that the combination of the references is improper.



BRINKS HOFER GILSON & LIONE
PO Box 10395
Chicago, IL 60610

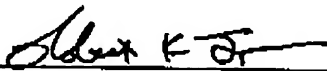
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Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is respectfully requested.

Respectfully submitted by,

Dated: June 29, 2006
Robert K. Fergan
Reg. No.: 51,674
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, IL 60610
(734) 302-6000



BRINKS HOFER GILSON & LIONE
PO Box 10395
Chicago, IL 60610